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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CHOWDHURY, SUMAIYA A	
ART UNIT	**PAPER NUMBER**
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/599,542	BRAUN, WARREN L.	
	Examiner	Art Unit	
	Sumaiya A. Chowdhury	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/19/07 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

(a) Applicant states "This suggestion...distinguish from the prior art and the application..." on page 8, 1st paragraph of the Remarks filed 6/19/07.

The newly added limitation to claims 1 and 18 do distinguish over the prior art. The Examiner has brought in Martinez (4208630) to teach the newly added limitation.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 7-11, 13-18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161) and Martinez (4208630).

Claim 1, Ritter discloses a signal distribution system (Fig.1) including:

A communication path between a central facility 10 including signal source and a termination section including a plurality of cable drops (Col. 2, line 47-Col. 3, lines);

A condition detector (Fig. 12; 420) at respective ones of the plurality of cable drops (Col. 7, lines 73-Col. 8, lines 35);

Means (Fig. 12, 410) for providing a sequence of tones responsive to the condition detector (Col. 8, lines 27-35);

Means for coupling the sequence of tones to the communication path during a time slot determined by a time base at the termination section of the communication path (Col. 8, lines 35-45); and

Means for decoding the sequences of tones at the central facility in accordance with respective time reference (slot) determined by a time base at the central facility, the respective time reference (slots) including a time reference slot) corresponding to the time reference (slot) as determined by the time base at the termination section of the communication path (Col. 6, lines 55-Col. 7, lines 32).

Ritter further discloses the time base at the termination section of the system is entirely independent on the time base at the central facility (The principle change is that solid state switching circuit 120 now switches the signal from the output driver circuit 121 to the individual output channels at a specific time after receipt of a time reference pulse. This time reference pulse is developed in the subscriber unit... see Col. 6, lines 50-62). In view of that the time reference pulse is time slot determined by time base (terminal clock) of the terminal section. Moreover Ritter 's central facility inherently has a time base (central facility clock) for Data synchronization and Data communication purposes. As such, time base (terminal clock) of the terminal section is independent from the time base (central facility clock) of the central facility and responsive to a broadcast time signal (i.e., synchronization time).

Ritter does not clearly disclose:

respective time slot determined by a time base at the central facility including a time slot corresponding to the time slot as determined by the time base at the termination section of the communication path; and

wherein said termination section does not require any need for any interrogation downstream signaling or to independently broadcast a broadcast time signal from the central facility and vice-versa.

Citta, in an analogous art, discloses respective time slot determined by a time base (the time base inherently must have in order to generate the time slot) at the central facility, the respective time slots including a time slot corresponding

to the time slot as determined by the time base (the time base inherently must have in order to generate the time slot) at the termination section of the communication path (Col. 7, lines 24-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter with time slot synchronization for two-way communication in CATV, as taught by Citta, so that upstream data packets are transmitted in VBI-synchronized time slots for reducing data transmission errors and increasing data throughput to the CATV headend in a multi-subscriber contention system, as suggested by Citta (Col. 7, lines 59-64).

However, Ritter and Citta fail to teach:

Wherein said termination section does not require any need for any interrogation downstream signaling or to independently broadcast a broadcast time signal from the central facility and vice-versa.

In an analogous art, Martinez teaches the broadcast station (2-fig. 1) transmits synchronizing reference signals to the central transmitting station (4, 8, 12, 79, 16, 17, 20, 22 – fig. 1) and to the remote radio receivers (6, 10, 14, 75, 24, 26, 28, 30 – fig. 1) – col. 2, lines 39-60, col. 6, lines 55-62, col. 8, lines 3-15. In other words, the time signal is neither received from the termination section nor the headend, but rather from a distinct unit (broadcast station 2).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Ritter and Citta's invention to include the above

mentioned limitation, as taught by Martinez, for the advantage of achieving very high signal-to-noise ration transmissions.

Claim 7, Citta further discloses "wherein the time base includes a counter for counting time slots" (Fig.1 and 4; Col. 7. lines 55);

Claim 8, "a comparator responsive to the counter for identifying time slots corresponding to respective ones of the plurality of cable drops" is further met by Citta (Col. 4, lines 15-45);

Claim 9, Citta further discloses means for latching an output of the condition detector and wherein the comparator is responsive to an output of the means for latching and the counter for controlling the means for generating the sequences of tones (Fig. 1; Col. 4, lines 45-50; Col. 4, lines 24-55);

Claim 10, "a time base at the central facility and means for counting time slots at the central facility " is further met by Ritter in view of Citta and Martinez because Citta's headend must have a corresponding mean for counting time slots (Col. 7, lines 55-65).

Claim 11, "means for comparing an output of the means for counting time slots and an output of the means for decoding the sequence of tones" is further met by Ritter in view of Citta and Martinez so the central facility is able to determine if all the interrogated subscribers did received all transmitted data and to further determine the status of the interrogated devices, as disclosed (Ritter, Col. 8, lines 40-45).

Claim 13, "means for resetting the counter" is further met by Ritter in view of Citta (Col. 7, lines 34-38) and Martinez for the obvious reason of synchronization between each time slot.

Claim 14, "means for synchronizing the counter with the means for counting time slots at the central facility" is further met by Ritter in view of Citta and Martinez so the system able to perform as discussed in claims 10-11.

Claim 15-17, Ritter in view of Citta and Martinez inherently stores power for operation of condition detector by providing sequences of tones as discussed from the previous claims and modulate the carrier signal in the CATV environment in which the frequency of the carrier signal is approximately 25 MHZ (Col. 7, lines 15- 20).

Claim 18, as discussed with respect to claims 1, 7 and 8.

Claim 22, Ritter in view of Citta and Martinez inherently storing power for performing the assigning and selectively coupling steps with electrical circuits so to perform as disclosed.

5. Claim 2, 4-5, 12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161) and Martinez, and further in view of Sullivan (US 3757035).

Claim 2, Ritter in view of Citta and Martinez further discloses wherein the means for providing the sequence of tones (Ritter; Col. 3, lines 5-30; Col. 8, lines 14-33).

Ritter does not clearly disclose the sequence of tones is a sequence of tone pairs

Sullivan discloses the means for providing the sequence of tone pairs (Fig. 9; Col. 25, lines 62-65+); Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta and Martinez, with the use of sequence of tone pairs, as taught by Sullivan, so to reduce bandwidth needed for transmitting the selection and interrogation signal, as suggested by Sullivan (Col. 25, lines 64-65).

Claim 4, Sullivan further discloses wherein the condition detector detects at least one of power outage and ingress (Col. 18, lines 45-52) for obtaining condition of remote receiver at the subscriber station for maintenance purpose.

Claim 5, Sullivan further discloses wherein the system is divided into plurality of sectors (Branches; Col. 8, lines 45-55) for network management purposes.

Claim 12, Sullivan further discloses mean for controlling polling frequency of the cable drops (the central station cyclically transmits the interrogation signals to remote stations; Fig.3);

Claim 23 is analyzed with respect to claim 2.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161) and Martinez, and further in view of Sullivan (US 3757035), and further in view of Ortel (US 5712897).

Claim 3, Ritter in view of Citta, Martinez, and Sullivan does not disclose wherein the means for decoding provides a digital signal input to a printer.

Ortel in a similar art discloses wherein the means for decoding provides a digital signal input to a printer (Fig. 3, el. 303; Col. 4, lines 49-53). Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta and Martinez and Sullivan with Ortel so to produce an on-line description of the problem detected including location of the network element affected (Col. 4, lines 50-54).

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161) and Martinez, and further in view of Lo Galbo et al. (US 5280629).

Claim 6, Ritter in view of Citta and Martinez does not clearly disclose wherein the time base is provided at directional coupler providing communication links to a plurality of the cable drops.

Lo Galbo (Fig. 2, el. 501) discloses the time base is provided at directional coupler providing communication links to a plurality of the cable drops (Col. 5, lines 53-Col. 6, lines 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta and Martinez with Lo Galbo so to allow the remote system to broadcast its message synchronously in which the synchronized system would compensate the efficiency of the system without directly evaluating the distribution channel delay.

8. Claims 19, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter (US 3619783) in view of Citta (US 4553161) and Martinez, and further in view of Ortel (US 5712897).

Claim 19, Ritter in view of Citta and Martinez does not clearly disclose "printing indicia corresponding to the sequence of tones."

Ortel in a similar art discloses wherein the means for decoding provides a digital signal input to a printer (Fig. 3, el. 303; Col. 4, lines 49-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ritter in view of Citta and Martinez with Ortel so to produce an on-line description of the problem detected including location of the network element affected (Col. 4, lines 50-54).

Claims 20 and 21 are analyzed with respect to claim 19.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumaiya A. Chowdhury whose telephone number is (571) 272-8567. The examiner can normally be reached on Mon-Fri, 9-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAC

ANDREW Y. KOENIG
PRIMARY PATENT EXAMINER